

Gimme Shelter: The U.S. Dollar Trade and Its Risks

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The resurgence of the U.S. dollar has been one of the leading investment stories of the last few quarters. A somewhat modest recovery in the United States has galvanized investors, who appear to believe once again in the currency version of the American dream. In contrast, headlines about the Eurozone malaise, the failed jump-start of the Japanese economy, and slowing growth in the emerging markets vindicate further depreciation in their respective currencies. No wonder strategists are forecasting further appreciation of the dollar (Ramage, 2015).

The comeback of the dollar appears very reasonable if based on a narrative about macroeconomic fundamentals. However, this narrative only partially reveals what has been taking place in the currency markets. It is insufficient for forming an educated guess about future scenarios and understanding the risk/return trade-offs that investors might be facing.

In this piece, I look at the performance of the U.S. dollar from a different angle. My goal is to explain the rally by looking at well-known currency factors and by illustrating their relationship with macroeconomic cycles. The classic paper by Meese and Rogoff (1983) showed that macroeconomic fundamentals are poor predictors of exchange rate movements at short horizons. In the spirit of the arbitrage pricing theory pioneered by Ross (1976), the cross-section of currency returns appears to be better characterized by a few risk factors. But which factors? There are at least three of them to keep in mind: the carry trade, momentum, and value. I contend that, in the prevailing market environment, the carry trade and momentum strategies sit uneasily with increasingly high valuations.

The “Old-Fashioned” Carry Trade

To explain what happens in currency markets, the usual suspect is the carry trade. This popular strategy consists of buying currencies of countries that offer relatively high cash rates and selling those of countries that offer relatively low cash rates. Depending on the measurement period and the sample of currencies considered, the carry trade has delivered annual returns above 4% and a Sharpe ratio higher than that of the U.S. equity market.¹ However, as shown by Lustig et al. (2011), these returns do not appear to be a free lunch. Instead, they are likely explained by their correlation with global financial risk.² The carry strategy is profitable in the long run, but it might result in painful losses precisely when investors might least want them.

This time, however, the carry trade as traditionally executed does not appear to be the main culprit. As **Figure 1** displays, what we have observed in the last few months is the U.S. dollar’s broad appreciation against both developed and emerging market



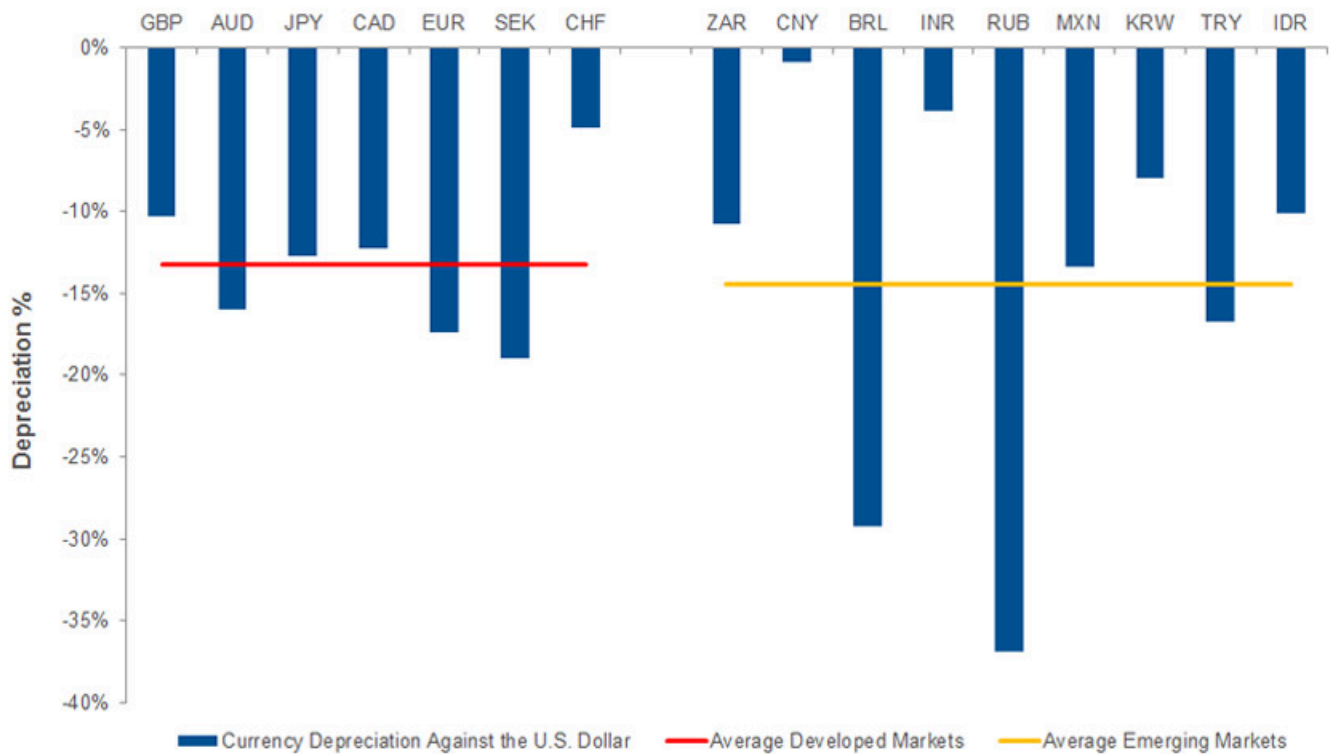
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currencies. Lustig et al. (2014) show that this generalized trend is typically related to the “dollar carry trade.”

**Figure 1. Nominal Currency Depreciation vs. USD
(September 2014 to March 2015)**



Note: The figure shows the nominal exchange rate depreciation of a basket of developed and emerging market countries against the U.S. dollar from September 2014 to March 2015.

Source: Research Affiliates using data from Bloomberg.

The Dollar Carry Trade

Simple in concept, the dollar carry trade is a variant of the traditional carry trade. The difference, nonetheless, is decisive: The new strategy is to buy dollars if the U.S. cash rate is higher than the *average* non-U.S. cash rate, and to sell dollars if the U.S. cash rate is lower than the *average* foreign cash rate. Cash rate differentials tend to account for a significant share of the *bilateral* exchange rate of the U.S. dollar against other currencies.

The dollar carry story is broadly consistent with the dynamics observed over the last months. Investors’ expectations of higher rates in the United States, along with lower rates due to quantitative easing (QE) in Japan and Europe, have been fueling the dollar’s performance. Moreover, returns on emerging market investments have been disappointing as well. International investors have been concerned about large current account deficits, geopolitical tensions, weak commodity prices, and unpopular governments in some emerging countries. Yet the dollar carry trade is not the safe-haven strategy they might imagine.

The Risks Ahead

The dollar carry trade, like the old-fashioned carry trade, is a risky strategy. The dollar carry trade, which historically fed on relatively high cash rates, is currently feeding on *expectations* of higher cash rates. Hence, much like a momentum strategy, its recent success has largely come from an appreciating dollar. But the strengthening of the dollar has not been accompanied by higher short rates.³ In this environment, it is understandable that the dovish attitude of some Fed officials has recently spooked the markets and slowed down the dollar's rise.⁴

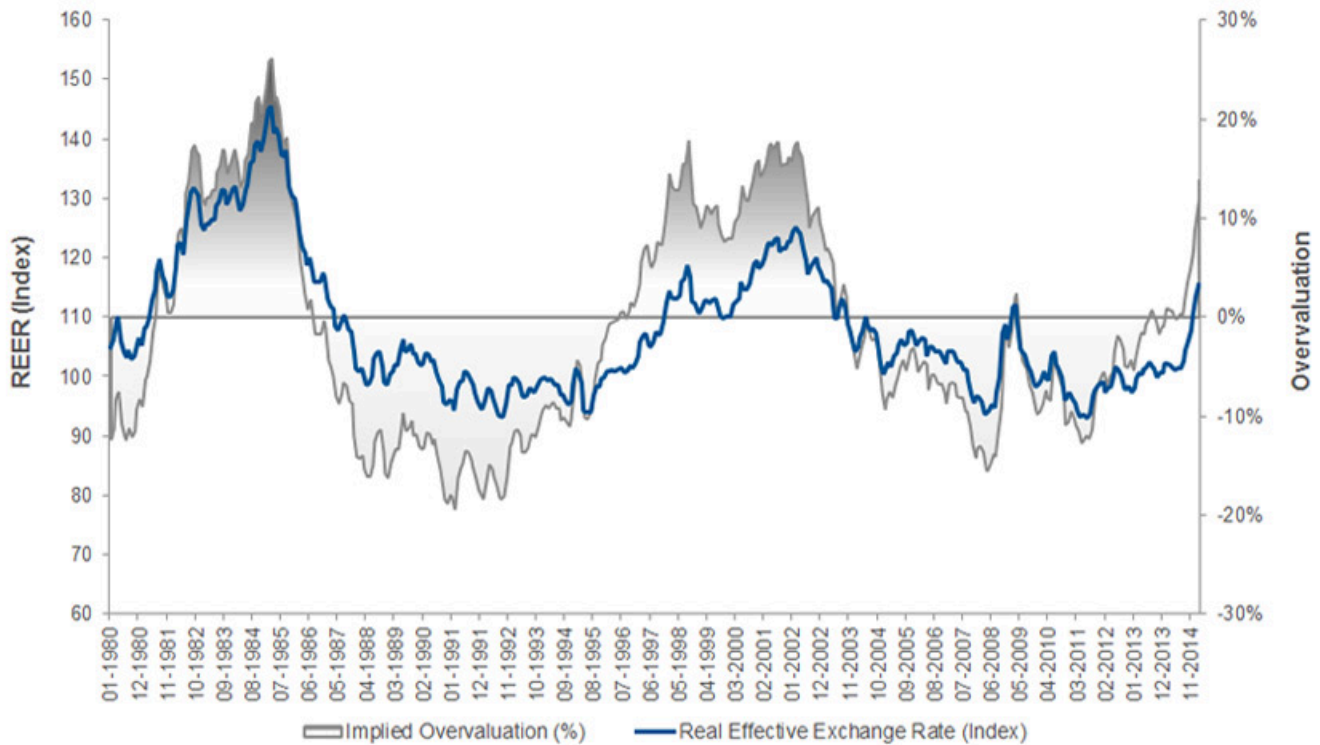
In addition, U.S. investors who are selling foreign currencies are increasing their exposure to the risk of an economic slowdown in the United States. Hence, they are failing to diversify the macroeconomic risk that tends to hurt their income the most. In the medium and long run, as value strategies become more important in the currency markets, they may find themselves vulnerable to a weakening dollar *and* slower domestic growth.

The first risk, then, is that future U.S. interest rates might disappoint consensus expectations (Shepherd, 2015). Currency prices are forward looking, and by now they should *already* incorporate expectations of higher interest rates in the United States and of QE in Europe and Japan. Any further dollar appreciation should come either from an unexpectedly hawkish Federal Reserve stance or unexpectedly loose foreign policies. However, several signals suggest that Fed monetary policy might actually remain highly accommodative in the months to come. Recognizing that a stronger dollar might harm the economic recovery, some Fed officials appear to have misgivings about raising interest rates too soon or too far.

More generally, investors should be aware that momentum positions characteristically have rather short lives. By construction, currency momentum strategies have taken advantage of relatively transitory trends in foreign exchange movements. In comparison, carry trade strategies have typically exploited cash rate differentials that persisted over an extended period of time. The historical record suggests that, without positive surprises from the U.S. economy, the ongoing appreciation of the dollar might soon come to an end.

The second risk arises from the current price of the U.S. dollar. It appears to be overvalued with respect to the currencies of the United States' major trading partners. **Figure 2** illustrates that the U.S. dollar is more than 10% above its long-run equilibrium value as predicted by a simple application of the Purchasing Power Parity (PPP) theory.⁵ Given that higher valuations have generally been supported by higher interest rates, the current overvaluation might prove unsustainable in the medium term. The official U.S. unemployment rate is, at 5.5%, about 25–50 bps above its estimated equilibrium level, while core inflation is not far from its 2% target. Hence, it appears that permanently low interest rates are consistent with a U.S. economy running at the speed desired by the Fed.

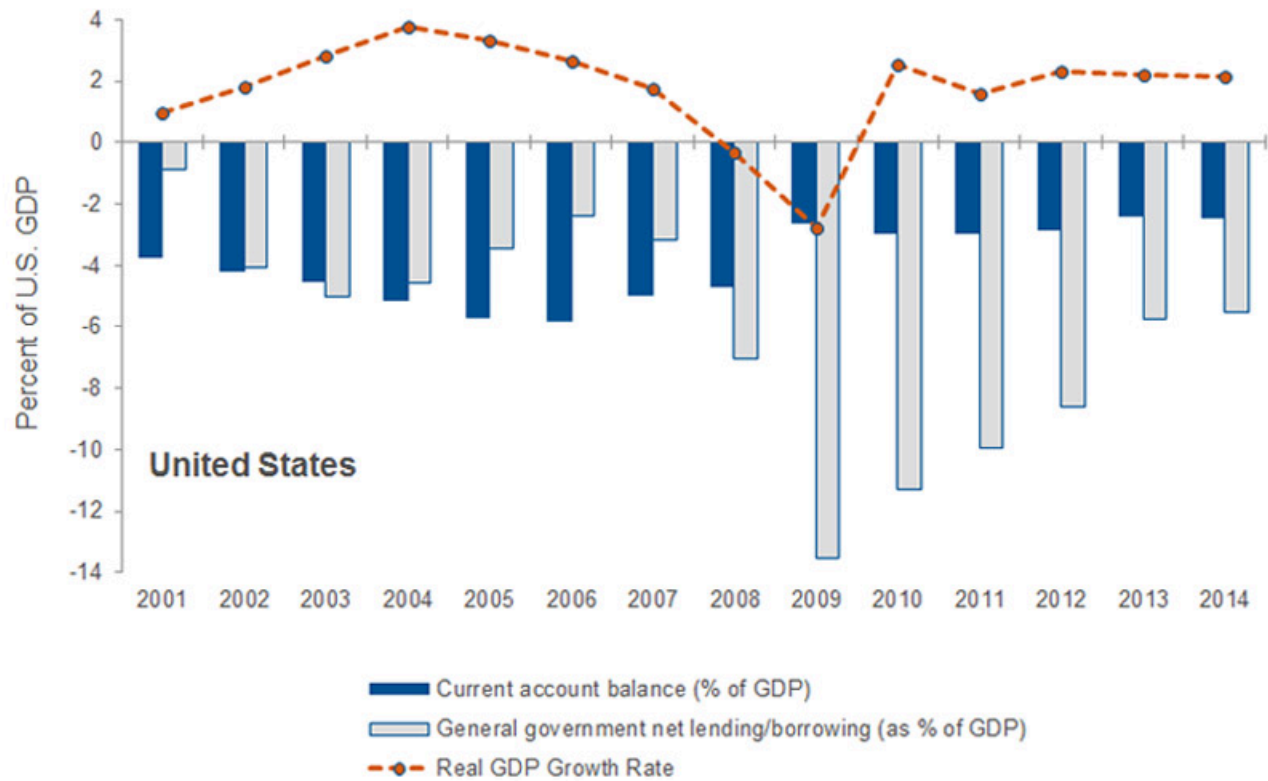
Figure 2. Real Effective USD Exchange Rate vs. Other Major Currencies (January 1980 to February 2015)



Note: The figure shows the real effective exchange rate of the U.S. dollar, computed as the real exchange rate against a weighted average of other major currencies, whose weight is proportional to the trading share of the respective countries with the United States. More details are available from the Bank of International Settlements (BIS) (specifically, we use the “narrow” index provided on their website). The implied overvaluation/undervaluation measure is simply computed as the index minus its previous 10-year average.
Source: Research Affiliates using data from BIS.

The U.S. current account deficit might also add to concerns about the long-run valuation of the dollar. A current account deficit suggests that the country imports more than it exports and pays for the difference by selling domestic assets to foreign investors. A significant and persistent deficit is therefore unsustainable in the long run. It might require that the dollar depreciate. **Figure 3** shows that the U.S. current account is very much in negative territory. The United States has failed to close the current account deficit despite enjoying strong tailwinds from the energy sector and a weaker dollar in 2011 and 2012. This evidence suggests that, in view of the current levels of government borrowing, a strong dollar could be followed by dangerously high current account deficits.

Figure 3. U.S. Current Account Balance as Percent of GDP
(2001-2014)



Note: The figure shows the current account balance as a percentage of GDP, the general government net lending as a percentage of GDP, and the real GDP growth rate for the United States.

Source: Research Affiliates using data from IMF World Economic Outlook Database (October 2014).

In Closing

The current foreign exchange environment offers an opportunity for U.S. investors to diversify their portfolios. The U.S. dollar appears overvalued across almost the entire spectrum of currencies; this means there might be currencies which are priced below their fundamental value. In addition, a strong dollar might impair U.S. corporate earnings, boosting foreign markets. Finally, and perhaps most critically important for long-term investors, there are returns to be harvested from investing in countries with higher cash rates. In particular, the emerging markets offer the opportunity to invest in younger economies with greater growth opportunities. The historical benefits of diversification should induce investors to consider whether it is worth concentrating their risk exposure toward the U.S. economy.

Endnotes

1. For an overview of the literature and most recent findings, see Lustig et al. (2011) and Koijen et al. (2013).
2. The common variation of foreign currencies against the U.S. dollar explains about three-fourths of the returns earned by U.S. dollar-based investors with broad exposure to international currencies. Lustig et al. (2011), p. 13.
3. In a momentum strategy, investors buy currencies that have appreciated in the previous few months and sell the currencies that have lost in value.
4. The minutes from the FOMC meeting of March 18 show that some members of the rate-setting committee are in favor of delaying the first increase of the target rate to later this year or even early 2016.
5. The absolute version of the PPP theory predicts that the price of a basket of goods expressed in a common currency should be equalized across different countries (i.e., the *real* exchange rate should be unity). A weaker form of PPP predicts that real exchange rates should remain constant. Nominal exchange rates are much more volatile than the prices of goods, and we actually observe deviations from PPP predictions. Because these deviations tend to be corrected over medium and long horizons, they form the basis for value strategies in currency markets.

References

- Koijen, Ralph S.J., Tobias J. Moskowitz, Lasse Heje Pedersen, and Evert B. Vrugt. 2013. “**Carry.**” NBER Working Paper No. 19325.
- Lustig, Hanno, Nikolai Roussanov, and Adrien Verdelhan. 2011. “Common Risk Factors in Currency Markets.” *Review of Financial Studies*, vol. 24, no. 11 (November):3731–3777.
- . 2014. “Countercyclical Currency Risk Premia.” *Journal of Financial Economics*, vol. 111, no. 3 (March):527–553.
- Meese, Richard, and Kenneth Rogoff. 1983. “**The Out-of-Sample Failure of Empirical Exchange Rate Models: Sampling Error or Misspecification?**” In Jacob A. Frenkel, ed., *Exchange Rates and International Macroeconomics* (NBER Research Conference Report). Chicago, IL: University of Chicago Press.
- Ramage, James. 2015. “**Dollar’s Strengthening Likely Isn’t Over.**” *Wall Street Journal* (March 31).
- Ross, Stephen A. 1976. “The Arbitrage Theory of Capital Asset Pricing.” *Journal of Economic Theory*, vol. 13, no. 3 (December):341–360.
- Shepherd, Shane. 2015. “**Not-So-Great Expectations: Why Real Interest Rates Won’t Soar.**” Research Affiliates (April).

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